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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,775	03/24/2005	Jean-Louis Ouvrier-Buffer	122774	3398

25944 7590 09/12/2006

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EXAMINER
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TANINGCO, MARCUS H

ART UNIT	PAPER NUMBER
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2884

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/524,775	OUVRIER-BUFFET ET AL.	
	Examiner	Art Unit	
	Marcus H. Taningco	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-26 is/are rejected.
- 7) ☐ Claim(s) 27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/16/05</u> .                                                 | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Response to Amendment

Amendments filed 2/16/05 have been entered. Claims 15-28 are subject to examination herein.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rotolante (US 3,987,298).

Regarding claim 15, Rotolante discloses a radiation detection device (Figs. 1 & 2) comprising two non-cooled superposed detectors, a detector **B** detecting a first range of wavelengths and a detector **A** detecting a second range of wavelengths, device wherein detector **B** is arranged inside a protective housing (housing comprising elements **20**, **24**, and **26**), at least a top wall **26** of the protective housing comprising detector **A**.

Regarding claim 20, Rotolante discloses at least the top wall of the protective housing formed by the detector (Fig. 2).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17, 18, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotolante.

Regarding claim 17, Rotolante discloses an electronic processing circuit (signal processor) **12** disposed to receive signals from said two detectors, wherein detector **B** is mounted on a substrate **20**, but fails to teach detector **B** mounted on said electronic processing circuit. Nevertheless, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Rotolante with said detector mounted on said electronic processing circuit to provide more efficient signal transmission.

Regarding claim 18, Rotolante discloses electrical connection elements between detector **A** and the circuit **12** (Fig. 1).

Regarding claim 21, Rotolante discloses at least the top wall of the protective housing formed by the detector (Fig. 2), but fails to suggest said detector forming the side walls of said housing. However, Rotolante teaches that said detector determines the wavelength of incident radiation from an unknown line source (Col. 1, 8-12). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Rotolante with a detector forming the side walls of the housing in order to detect incident radiation from multiple locations.

Regarding claims 22 and 23, Rotolante discloses detector **B** may be a diode (Col. 2, 31-32), but fails to specify detecting wavelengths in the infrared range. However, those skilled in the art can appreciate that diodes are well known infrared detectors. Detecting wavelengths in the infrared range is thus viewed as a matter of routine design choice.

Regarding claims 24 and 25, Rotolante discloses detector **A** may be a photoconductive detector (Col. 2, 31-32), but fails to specify detecting wavelengths in the infrared range. However, those skilled in the art can appreciate that photoconductive detectors are well known visible light detectors. Detecting wavelengths in the visible light range is thus viewed as a matter of routine design choice.

Regarding claim 26, Rotolante discloses detector may be a photoconductive detector (Col. 2, 31-32), but fails to specify detecting wavelengths in the infrared range. However, those skilled in the art can appreciate that photoconductive detectors are well known X-ray detectors. Detecting wavelengths in the X-ray range is thus viewed as a matter of routine design choice.

Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rotolante in view of Gray et al. (US 5,631,460).

Re claim 16, Rotolante discloses the claimed invention but fails to teach the wavelengths of the first range are higher than the wavelengths of the second range. Gray teaches a series detector comprising a first and a second detector detecting two spectral ranges (Col. 5, 25-45) wherein the wavelengths of the first range are higher than the wavelengths of the second range. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Rotolante in order to detect different frequency spectrums for use in sorting machines.

Re claim 19, Rotolante discloses the claimed invention, but fails to teach the support elements of the first detector. Gray teaches first detector comprising support elements (Fig. 3). It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify Rotolante with said support elements in order to provide thermal isolation.

### **Allowable Subject Matter**

Claims 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

With regards to claims 27 and 28, prior art teaches a single detector arranged inside the protective housing, and it would not have been obvious to provide a plurality of detector therein.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus H. Taningco whose telephone number is (571) 272-1848. The examiner can normally be reached on M - F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT



**ALBERT J. GAGLIARDI**  
**PRIMARY EXAMINER**